**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

**1. - 22. (canceled).**

23. (currently amended): A method for managing one or more denitration catalysts in an exhaust-gas denitration system, the method comprising:

measuring [$NH_3$] and [$NO_x$] at an inlet and an outlet of each denitration catalyst;

measuring extent of deterioration of each denitration catalyst in consideration of both [$NH_3$] and [$NO_x$]; and

determining, based on nature of deterioration, which ~~process~~one of the following processes is to be performed~~,~~ (1) regeneration of the denitration catalysts ~~or~~; (2) replacement of the denitration catalysts~~,~~; or (3) neither of the regeneration nor the replacement is performed, ~~for each of the denitration catalysts~~

wherein the extent of deterioration is determined by calculating a denitration ratio ($\eta$) according to the following equation (2):

$$\eta = \frac{(\text{inlet } NH_3 - \text{outlet } NH_3)}{(\text{inlet } NH_3 - \text{outlet } NH_3 + o\textit{utlet } NO_X)} \times 100 \times \frac{\text{evaluation mole ratio}}{\text{inlet mole ratio}} \quad (2).$$

24. (currently amended): The method for managing one or more denitration catalysts according to claim 23, wherein

the regeneration process includes a plurality of ways of regeneration, and

when it is determined to perform the regeneration, the determining includes selecting an optimum way of regeneration based on the nature of deterioration of the denitration catalysts,

wherein the regeneration consists of (a) reversing the gas flow direction, (b) washing with water, (c) removing with chemicals, (d) scraping the catalyst surface or (e) re-impregnation.

25. (previously presented): The method for managing one or more denitration catalysts according to claim 23, further comprising replacing, when it is determined to perform the replacement, one of the denitration catalysts with a denitration catalyst that has been used in another exhaust-gas denitration system and that has undergone regeneration.

26. (previously presented): The method for managing one or more denitration catalysts according to claim 23, further comprising determining a charge amount to be collected, when it is determined to perform the regeneration, by acquiring an amount of money at a predetermined ratio to an amount of a difference between a cost required for the replacement and a cost required for the regeneration.

27. (previously presented): The method for managing one or more denitration catalysts according to claim 23, further comprising determining a charge amount to be collected from a user of the exhaust-gas denitration system based on a cost required for installation and management of the denitration catalysts.

28. (previously presented): The method for managing one or more denitration catalysts according to claim 23, wherein

the extent of deterioration is measured by checking an exhaust gas at the inlet and the outlet of each of the denitration catalysts in a daily management for the denitration catalysts.

29. (previously presented): The method for managing one or more denitration catalysts according to claim 23, wherein

the measuring of the extent of deterioration includes, in a periodic maintenance for the denitration catalysts,

extracting a sample of the denitration catalysts, and

measuring extent of deterioration of the sample.

30. (previously presented): The method for managing one or more denitration catalysts according to claim 23, further comprising dividing, when it is determined to perform the replacement, a denitration catalyst to be replaced.

31. (previously presented): The method for managing one or more denitration catalysts according to claim 23, further comprising dividing, when it is determined to perform the regeneration, a denitration catalyst to be regenerated.

32. (previously presented): The method for managing one or more denitration catalysts according to claim 23, wherein

the determining includes determining, based on the nature of deterioration, whether at

least one of the regeneration, the replacement, and an addition of a new denitration catalyst is performed or none of the regeneration, the replacement, and the addition is performed, for each of the denitration catalysts.

33. (previously presented): The method for managing one or more denitration catalysts according to claim 32, further comprising adding, when it is determined to perform the addition, a denitration catalyst that has been used in another exhaust-gas denitration system, and that has undergone regeneration.

34. (previously presented): The method for managing one or more denitration catalysts according to claim 32, further comprising dividing, when it is determined to perform the addition, a denitration catalyst to be added.

35. (currently amended): A method for managing one or more denitration catalysts in an exhaust-gas denitration system, the method comprising:

measuring $[NH_3]$ and $[NO_x]$ at inlets and outlets of each denitration catalysts;

measuring extent of deterioration of each denitration catalyst in consideration of both $[NH_3]$ and $[NO_x]$; and

determining, based on the extent of deterioration, execution timing for regeneration of the denitration catalysts and for replacement of the denitration catalysts, for each of the denitration catalysts,

wherein the extent of deterioration is determined by calculating a denitration ratio ($\eta$) according to the following equation (2):

$$\eta = \frac{(\text{inlet } NH_3 - \text{outlet } NH_3)}{(\text{inlet } NH_3 - \text{outlet } NH_3 + \text{outlet } NO_X)} \times 100 \times \frac{\text{evaluation mole ratio}}{\text{inlet mole ratio}} \quad (2).$$

36. (previously presented): The method for managing one or more denitration catalysts according to claim 35, wherein

the determining includes determining execution timing for addition of a new denitration catalyst for each of the denitration catalysts in addition to the execution timing for the regeneration and for the replacement.

37. (previously presented): The method for managing one or more denitration catalysts according to claim 35, wherein

the extent of deterioration is measured by checking an exhaust gas at the inlet and the outlet of each of the denitration catalysts in a daily management for the denitration catalysts.

38. (previously presented): The method for managing one or more denitration catalysts according to claim 35, wherein

the measuring of the extent of deterioration includes, in a periodic maintenance for the denitration catalysts,

extracting a sample of each of the denitration catalysts, and

measuring extent of deterioration of the sample.

39. (currently amended): A method for managing one or more denitration catalysts in an exhaust-gas denitration system, the method comprising:

predicting performance of each of the denitration catalysts based on information on a scale and a total time of operation of the exhaust-gas denitration system; and

determining execution timing for regeneration of the denitration catalysts, for replacement of the denitration catalysts, and for addition of a new denitration catalyst, besides already provided denitration catalysts, based on the performance,

wherein the performance is determined by calculating a denitration ratio (η) according to the following equation (2):

$$\eta = \frac{(\text{inlet } NH_3 - \text{outlet } NH_3)}{(\text{inlet } NH_3 - \text{outlet } NH_3 + \text{outlet } NO_X)} \times 100 \times \frac{\text{evaluation mole ratio}}{\text{inlet mole ratio}} \quad (2).$$

40. (currently amended): An apparatus for managing one or more denitration catalysts in an exhaust-gas denitration system that includes a measuring device, the apparatus comprising:

a receiving unit that receives, through a network, information on extent of deterioration of each of the denitration catalysts that is measured by the measuring device that includes a gas extracting unit that measures [$NH_3$] and [$NO_x$] at inlets and outlets of each of the denitration catalysts;

a storage unit that stores the information; and

a determining unit that determines, based on the information in the storage unit and in consideration of both [$NH_3$] and [$NO_x$] which process is to be performed, regeneration of the denitration catalysts or replacement of the denitration catalysts, or neither of the regeneration nor the replacement is performed, for each of the denitration catalysts,

wherein the extent of deterioration is determined by calculating a denitration ratio (η) according to the following equation (2):

$$\eta = \frac{(\text{inlet } NH_3 - \text{outlet } NH_3)}{(\text{inlet } NH_3 - \text{outlet } NH_3 + o\textit{utlet } NO_X)} \times 100 \times \frac{\text{evaluation mole ratio}}{\text{inlet mole ratio}} \quad (2).$$

41. (previously presented): The apparatus for managing one or more denitration catalysts according to claim 40, wherein

the determining unit determines whether at least one of the regeneration, the replacement, and an addition of a new denitration catalyst is performed, or none of the regeneration, the replacement, and the addition is performed, for each of the denitration catalysts based on the information in the storage unit.

42. (currently amended): An apparatus for managing one or more denitration catalysts in an exhaust-gas denitration system that includes a measuring device, the apparatus comprising:

a receiving unit that receives, through a network, information on extent of deterioration of each of the denitration catalysts that is measured by the measuring device that includes a gas extracting unit that measures [$NH_3$] and [$NO_x$] at inlets and outlets of each of the denitration catalysts;

a storage unit that stores the information; and

a determining unit that determines, based on the information in the storage unit and in consideration of both [$NH_3$] and [$NO_x$] execution timing for regeneration of the denitration catalysts and for replacement of the denitration catalysts for each of the denitration catalysts,

wherein the extent of deterioration is determined by calculating a denitration ratio (η) according to the following equation (2):

$$\eta = \frac{(\text{inlet } NH_3 - \text{outlet } NH_3)}{(\text{inlet } NH_3 - \text{outlet } NH_3 + \text{outlet } NO_X)} \times 100 \times \frac{\text{evaluation mole ratio}}{\text{inlet mole ratio}} \quad (2).$$

43. (previously presented): The apparatus for managing a plurality of denitration catalysts according to claim 42, wherein

the determining unit determines execution timing for an addition of a new denitration catalyst for each of the denitration catalysts based on the information in the storage unit in addition to the execution timing for the regeneration and for the replacement.

44. (currently amended): An apparatus for managing one or more denitration catalysts in a first exhaust-gas denitration system, the apparatus comprising:

a storage unit that stores information on performance of a plurality of denitration catalysts in a second exhaust-gas denitration system and information on execution timing for regeneration of the denitration catalysts, for replacement of the denitration catalysts, and for addition of a new denitration catalyst that are determined based on the information on the performance of the denitration catalysts in the second exhaust-gas denitration system;

a receiving unit that receives information on a scale and a total time of operation of the first exhaust-gas denitration system;

a predicting unit that predicts performance of each of the denitration catalysts in the first exhaust-gas denitration system based on the information received and the information in the storage unit; and

a determining unit that determines execution timing for the regeneration, for the replacement, and for the addition for each of the denitration catalysts, besides already provided denitration catalysts, based on the performance predicted,

wherein the performance is determined by calculating a denitration ratio (η) according to the following equation (2):

$$\eta = \frac{(\text{inlet } NH_3 - \text{outlet } NH_3)}{(\text{inlet } NH_3 - \text{outlet } NH_3 + \text{outlet } NO_X)} \times 100 \times \frac{\text{evaluation mole ratio}}{\text{inlet mole ratio}} \quad (2).$$